

## General

### Title

Nephrologic care: percentage of correctly monitored continuous renal replacement (CRR) therapy treatments.

### Source(s)

Quality indicators in critically ill patients. Madrid (Spain): Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC); 2011. 185 p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of correctly monitored continuous renal replacement (CRR) therapy treatments.

### Rationale

The aim of intensive care medicine is to provide critical patients with the healthcare that they need, ensuring the quality and safety of care. Intensive care medicine is one of the principal components of modern healthcare systems. There is an increasing demand for this resource, which involves high costs.

The quality of care has gradually come to be the central focus of healthcare, and in recent years patient safety has come to represent one of the key aspects of quality. In the case of intensive care medicine, this interest in quality is even more evident, not only because of its social and economic impact, but also because some of the dimensions involved in the quality of care of critical patients take on greater importance: critical patients are more vulnerable, access to critical care is more limited so efforts to

distribute resources equitably are more important, scant scientific evidence is available, and the efficiency is limited.

Although continuous renal replacement (CRR) therapy has not proven more effective than intermittent dialysis techniques in reducing mortality, it may lead to better outcome (better tolerance) and be more suitable given the resources available for critical patients. CRR therapy is especially indicated for patients with cardiovascular dysfunction, multiple organ failure, or intracranial hypertension. Some parameters should be monitored to ensure the effectiveness and safety of continuous techniques.

## Evidence for Rationale

Bagshaw SM, Berthiaume LR, Delaney A, Bellomo R. Continuous versus intermittent renal replacement therapy for critically ill patients with acute kidney injury: a meta-analysis. *Crit Care Med*. 2008 Feb;36(2):610-7. [70 references] [PubMed](#)

Ghahramani N, Shadrou S, Hollenbeak C. A systematic review of continuous renal replacement therapy and intermittent haemodialysis in management of patients with acute renal failure. *Nephrology (Carlton)*. 2008 Oct;13(7):570-8. [51 references] [PubMed](#)

Herrera Gutierrez ME. [Intermittent versus continuous renal replacement techniques: pro continuous]. *Med Intensiva*. 2009 Mar;33(2):88-92. [PubMed](#)

Quality indicators in critically ill patients. Madrid (Spain): Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC); 2011. 185 p.

Rabindranath K, Adams J, Macleod AM, Muirhead N. Intermittent versus continuous renal replacement therapy for acute renal failure in adults. *Cochrane Database Syst Rev*. 2007;(3):CD003773. [53 references] [PubMed](#)

## Primary Health Components

Nephrologic care; monitoring; continuous renal replacement (CRR) therapy

## Denominator Description

Total number of continuous renal replacement (CRR) therapy treatments (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Total number of correctly monitored continuous renal replacement (CRR) therapy treatments (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## Additional Information Supporting Need for the Measure

Unspecified

## Extent of Measure Testing

Unspecified

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Hospital Inpatient

Intensive Care Units

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

### Statement of Acceptable Minimum Sample Size

Unspecified

### Target Population Age

Age greater than or equal to 18 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Making Care Safer

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

## IOM Domain

Effectiveness

Safety

# Data Collection for the Measure

## Case Finding Period

Unspecified

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Institutionalization

Therapeutic Intervention

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

Total number of continuous renal replacement (CRR) therapy treatments

Population: All dialysis treatments carried out in the period reviewed.

### Exclusions

Unspecified

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

### Inclusions

Total number of correctly monitored continuous renal replacement (CRR) therapy treatments

Note:

Appropriate monitoring:

Prescription of the dialysis dose in function of the patient's weight

Median filter duration (hours)

Unplanned time without treatment (hours/day)

Effective treatment time (hours/day)

Estimated blood loss due to system coagulation (ml/day)

Real daily dose received by the patient: absolute (ml/kg/day) and relative (percentage of the prescribed dose)

Incidence of electrolyte disturbances in treatment greater than 48 hours (Na, K, Cl, P, Mg, HCO<sub>3</sub>)

Incidence of complications (mechanical, hemorrhagic, infectious, hypothermia)

A treatment includes all sessions carried out without changes in the modality of the procedure.

### Exclusions

Unspecified

## Numerator Search Strategy

Institutionalization

## Data Source

Electronic health/medical record

Paper medical record

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Unspecified

# Computation of the Measure

## Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Standard of Comparison

not defined yet

## Prescriptive Standard

Standard: 80% to 90%

## Evidence for Prescriptive Standard

Quality indicators in critically ill patients. Madrid (Spain): Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC); 2011. 185 p.

# Identifying Information

## Original Title

Monitoring continuous renal replacement therapy.

## Measure Collection Name

Quality Indicators in Critically Ill Patients

## Measure Set Name

Nephrologic Care

## Submitter

Spanish Society of Intensive and Critical Care and Units Coronary - Clinical Specialty Collaboration

## Developer

Spanish Society of Intensive and Critical Care and Units Coronary - Clinical Specialty Collaboration

## Funding Source(s)

Boehringer Laboratories

## Composition of the Group that Developed the Measure

Work Group for Kidney Care

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## Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

## Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC

2011 Mar

## Measure Maintenance

Unspecified

## Date of Next Anticipated Revision

2016 Jul

## Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in May 2016.

## Measure Availability

Source available in [English](#)  and [Spanish](#)  from the Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC) Web site.

For more information, contact SEMICYUC at Paseo de la Reina Cristina, 36, 4<sup>o</sup> D, Madrid, Spain; Phone: +34-91-502-12-13; Fax: +34-91-502-12-14; Web site: [www.semicyuc.org](http://www.semicyuc.org) ; E-mail: [secretaria@semicyuc.org](mailto:secretaria@semicyuc.org).

## NQMC Status

This NQMC summary was completed by ECRI Institute on January 7, 2014. The information was verified by the measure developer on February 26, 2014.

The information was reaffirmed by the measure developer on May 10, 2016.

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## Production

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